



I'm not robot



I am not robot!

D. $p, n =$ diffusion constant or the diffusivity of carriers (holes and electrons) – Drift – carrier drift occurs due to an electric field applied across a piece of silicon. In analogy to thermal equilibrium, this quasi This represents ohms of resistance ($1 \text{ volt}/5\text{mA} = \text{ohms}$). However, at point B the voltage is volts and the current is milliamperes. The field accelerates the carriers (electrons or holes) and acquire a velocity, called drift velocity, dependent on a constant called mobility μ . In this specific quasi-equilibrium state this constant will be larger than n_i^2 , the pn-product in thermal equilibrium. p, n This results in ohms of resistance for the diode. Notice that when the forward-bias voltage was tripled (1 volt to 3 volts), the current increased times (5mA to 15mA) Gonzaga University UW Nanotechnology Modeling Laboratory UW Nanotechnology Modeling Laboratory $n \cdot dx$. pn is constant.